

Hospital Central Services

Volume 1

A Survey of Current Literature

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service • Division of Hospital and Medical Facilities
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FOREWORD

As the value of Hospital Central Services becomes increasingly recognized by our Nation's hospitals, both a need and demand have arisen for authoritative materials for planning, organizing, and operating such services. To assist persons concerned with these materials, the Division of Hospital and Medical Facilities is undertaking studies and developing information relevant to the subject.

This publication is Volume 1 of a planned series relating to Hospital Central Services. It has been divided into three parts: I. Annotated Bibliography - includes selected articles found in periodicals; II. Manuals - lists special publications relating to Central Services; III. Periodicals - lists periodicals and other sources which may be contacted for information relating to Central Services practices.

The material reviewed covers the period from 1955 until the date of publication. The compilation is the work of Mrs. Marie M. Lech, R. N., A. M., consultant to the Division in the subject area.



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Part I
ANNOTATED BIBLIOGRAPHY

ADMINISTRATION

1. Bailey, N. D., "The Administrator Evaluates Central Supply."
Hospital Topics 34:123-4, October 1956.

This administrator views a centralized supply service as a basic factor in a smooth-running hospital. He points out that a well-planned central supply unit increases productivity, and a well-organized unit lends itself to optimum utilization of personnel. Also, an increase in the quantity of production should mean lowered cost, improved service, and increased efficiency.

2. Darmady, E. M., et al. "Scope, Function, and Organization of the Central Sterile Supply Department in the Portsmouth Group Hospitals."
Hospital 56:824-37, October 1960.

The provision of a central syringe and central sterile supply service for a group of British hospitals is analyzed in detail. The authors explain the procedures, costs, and benefits of such a program and the need for maintaining a central regional service.

Reasons are given to support the theory that a central sterile supply for a number of hospitals would be more economical than locally based departments. A table of costs (in pounds) is also given.

3. Fraser, G. I. "Who Should Operate Central Service? Nurses or Others?"
Hospital Management 92:81+, December 1961.

The relative merits of the professional nurse as head of central supply service versus non-nursing management of the department was the subject of a master's thesis by the author. Miss Fraser discusses methodology, draws conclusions, and makes recommendations. She found that departments functioned as well under non-nursing as nursing control and feels that serious consideration should be given to organization of central supply services under a non-nursing department of hospital administration.

4. French, John and Nichols, Terry B. "The Administrative Structure of Central Service." Hospital Management 81:88+, February 1956.

Several patterns of the administrative structure of central service are presented in the interest of providing material for comparison. They include: (1) the department which functions as a part of nursing service; the central service supervisor is very often given the title of administrative supervisor or even administrative assistant; (2) the supervision of the central service and operating room by one person, a registered nurse; (3) the supervision of the central service department by a head nurse who reports to the operating room supervisor; (4) the department, headed by a central service supervisor responsible directly to the hospital administrator (may or may not be a graduate nurse) and; (5) central service department under the administrative direction of the pharmacist, with the possible use of a registered nurse as assistant or consultant.

5. Noles, E. M. "Our Central Supply Has Become Central Service." Hospital Management 90:93, September 1960.

This article describes four additional services which the central supply room of one New York hospital has found necessary to supply to the institution. These are: (1) cleaning and replenishing of dressing carts for the nursing units; (2) supplying "blood carts" for the clinical laboratory technicians who draw patients' blood specimens as requested; (3) providing inhalation therapy service for patient units and outpatient areas, and (4) supplying sterile instrument sets to nursing units (previously each unit was responsible for its own).

6. Paine, L. H. W. "Central Sterile Supply." Hospital and Health Management 24:759-763, November 1961. (Part I of a 4-part series.)

The author expresses his views regarding central sterile supply departments in hospitals, based on experience gained while setting up the experimental department at Addenbrooke's Hospital, Cambridge, England, in 1960. The work of this project was divided into three phases: (1) to discover whether central sterile supply departments were necessary at all; (2) to study existing centralized organizations; and (3) based on information gained in phase two, to try out ideas at one or two experimental central departments.

The first two phases were undertaken by the Nuffield Provincial Hospitals Trust and in the third phase the Board of Governors of the United Cambridge Hospitals joined with the Trust to produce the one main experimental department at Addenbrooke's Hospital.

In this article, the first of four on the central sterile supply department, the author discusses what the department is, what it does, and how and

why it does it. Work flow diagrams and a list of contents for the various packs are included.

7. Paine, L. H. W. "Central Sterile Supply, Part 2: Delivery Systems." Hospital and Health Management. 24:846-848, December 1961.

This is the second of a series of four articles in which the author discusses his experiences gained while setting up the experimental department at Addenbrooke's Hospital, Cambridge, England.

The following delivery systems are discussed:

1. Topping-up -- setting predetermined stock levels for each user and keeping each item at these agreed levels by means of regular topping-up rounds.
2. Clean for dirty exchange -- one clean article is given for each dirty one returned to the department by users.
3. Regular complete stock issue -- issuing of a box, trolley, or basket containing a user's complete needs for a specific period, and the replacement of that container by a similar one at the end of the period, whether all the contents have been used or not.
4. Ordinary order system -- the straightforward ordering by users of items from the central department to keep their local store cupboards full.

Comments on the advantages and disadvantages of each system are given.

8. Paine, L. H. W. "Central Sterile Supply, Part 3: Organization, Staffing and Accommodation." Hospital and Health Management 24:56-59, January 1962.

This is the third of a series of four articles dealing with the establishment of the experimental department at Addenbrooke's Hospital, Cambridge, England. Factors considered under organization include a review of the functions of the department, workflow, and the need for adjoining work-rooms; under staffing, the recommendations specify a supervisor, a deputy or assistant supervisor, and a number of technicians; and under staff accommodations, it is suggested that provisions be made for a changing and cloak room and a restroom equipped with a kitchenette.

9. Paine, L. H. W. "Central Sterile Supply, Part 4 (final): Equipment and Cost." Hospital and Health Management 25:146-150, February 1962.

This is the fourth and last article dealing with the establishment of the experimental department at Addenbrooke's Hospital, Cambridge, England. All equipment installed and in use in this experimental unit is listed, together with remarks pertinent to each item and the manufacturer's name. Illustrations show the two types of delivery and collection trolleys most commonly used, as well as a trolley for use within the department. The article also stresses that an important point to consider when planning a new central department is the effect of the number of disposable supplies which will be used.

Accurate estimates of the cost of introducing central departments are difficult to make, the author points out. For example, the cost of more instruments is a calculable figure whereas the saving of nurses' time in boiling and reboiling these items is not readily calculable in monetary terms. The centralized system appears to be the more expensive, but this is the cost of doing the job properly; the old decentralized departmental arrangements are, and have been proved to be, open in theory to uncertainty and mistake, and in practice to the production of a definitely unsterile article.

10. Wissman, W. O. "It Can Be Done Successfully." Hospital Management 88:62, July 1959.

This is an example of one hospital in which the director of the central service department is a pharmacist. The article explains that the system works well when the pharmacist is concerned with the administrative and purchasing facets and is assisted by a nurse supervisor possessing the necessary technical knowledge, who is responsible for the day-to-day management of the department.

CENTRALIZATION

11. Lord, D. C. "Centralization Cuts Costs." Hospital Management 87:66+, April 1959.

A Certified Public Accountant analyzes the benefits accruing from the centralization of accounting services by a group of hospitals. The cost of data processing by electric computers makes it expedient to deal in quantity; thus, the needs of several hospitals can be satisfied at the same time.

12. Parnall, Christopher G., M.D. and Sutton, Frank C., M.D. "New Central Supply Concept - A Central Distribution Center." Hospital Management 79:54+, April 1955.

The evolvement of the Central Distribution Center as an extension of the central supply concept in modern hospitals is described in this article. It consists of the central supply department which adjoins the pharmacy and hospital storeroom, thus providing one supply source. Supplementing this concept is a sub-station or "retail" outlet on each floor of large hospitals from which supplies can be distributed to the bedside. The authors state that these changes have resulted in improved service to patients. Such a central distribution center is in use at Miami Valley Hospital of Dayton, Ohio.

13. Riley, W. A. "Centralize Central Service for Smoother Flow of Surgical Supplies." Modern Hospital 91:108, November 1958.

The author discusses an isometric drawing and floor plan of a central service department, designed for increased productivity, better utilization of personnel, and more economical operation. Central service, formerly in the surgical department, has grown too complex to be included in that department. Moreover, central service is best served by elevator from the laundry, hospital storage, and general storage below, with service to pharmacy, laboratories and surgical department on the same floor, and by dumbwaiter up to delivery floor above.

14. Vincent, Sister Margaret. "Keys to Successful Service -- Organization and Centralization." Southern Hospitals 27:34+, August 1959.

The author describes the organization of a 315-bed hospital. The various services in the hospital are centralized through a pneumatic tube system. Physical therapy, dietary, and purchasing departments are described briefly, with emphasis on innovations peculiar to each. The article includes an organizational chart of the hospital.

COSTS - CONTROL

15. Anderson, M. H. "High Cost of Obsolescence: What Do You Do with the Items No One Uses?" Hospital Management 90:94+, August 1960.

The problem of what to do with items which are kept on the shelves, but seldom if ever used, is discussed in this article. Appropriate statistics or a card index file are suggested as ways of checking usage of items before discussing them with the Standardization Committee.

16. Brett, L. and Schief, A. E. "Purchasing Agent Comes to the Aid of Central Supply." Modern Hospital 88:64, June 1957.

This article offers the suggestion that catheters, rectal tubes, and other kinds of tubing can be cleaned in washing machines (automatic) if they are placed in inexpensive mesh nylon bags. Steps in the old and new methods are listed to indicate time saved.

17. Collins, L. J. "Industrial Technics Are Means, Not End." Modern Hospital 97:6, August 1961.

In a letter to the editor, the author raises a point about the efficiency, or lack of it, when the hospital performs industrial operations which could be done better and more cheaply by outside industrial sources.

18. Christenson, K. E. "Allocation of Costs and Rate Determination." Hospital Accounting 16:4-6, May 1962.

This article explains the method used by one hospital to calculate charges to the patient for all medical and surgical trays and other supply items prepared in, or emanating from a central service department. An illustration of the charge voucher is included. The system has been in operation since September 1, 1960, with no procedural changes necessary since that time. The particular style of charge voucher was well-accepted by all concerned because of its simplicity and ease of processing. The same style has since been incorporated into vouchers used in several other areas of the hospital.

19. Dominic, Brother. "Newly Organized Central Service Improves Efficiency, Saves Money." Hospital Topics 34:115-118, November 1956.

This article explains how one hospital is solving the problem of centralizing supply. A breakdown of departmental staff and its duties is given, along with a floor plan and helpful hints to be considered in the preparation of such a department.

20. Hilderbrandt, J. and Morrow, J. L. "Analyzing the Cost of Central Supply." Hospitals 29:65-7, November 1955.

The authors describe a method for analyzing the cost of a central supply system. Costs are divided into two main groups: direct and indirect. The article explains how these costs are computed through the use of an

item-cost sheet, unit extension, and master extension sheets. Examples of each are shown by charts.

EQUIPMENT AND SUPPLIES

21. Cooke, J. W. "Equipment Room Has a Place for Everything." Modern Hospital 87:79-82, July 1956.

This article explains in detail how one hospital solved the problem of storing equipment which had previously been kept in individual nursing units or in the central supply room. A separate room was opened on the first floor to house these items. A floor plan and several pictures are included for further clarification.

The room is staffed by a nurses' aide who has a working knowledge of the equipment. A telephone recording device to take calls when the aide is not present provides 24-hour coverage. The patient discharge list is checked daily to see whether any equipment is still assigned to a discharged patient -- a particularly helpful suggestion.

Advantages which the hospital feels have been obtained are also listed.

22. "Disposables Change Hospitals' Buying Habits." Modern Hospital 95:100, December 1960.

This article summarizes the changes disposable products have brought about in hospital purchasing and storage practices. In a survey of approximately 130 hospitals, respondents indicated that the maintenance of a sufficient stock of disposables to meet any demand has resulted in the need for (1) expanded inventories, (2) improved inventory controls, and (3) more adequate storage space. Analysis of the replies also revealed that hospital purchasing is becoming more complicated due to the frequent introduction of new products, more frequent buying, and the fact that hospitals shifting to a disposable product buy in much larger quantities.

23. Rosella, Sister M. "Ideas for Central Supply." Southern Hospitals 28:19-21, November 1960.

Several excellent ideas for smoother and more efficient operation of the central supply room are discussed in this brief article. Among these are: easily constructed "Lazy Susans" (illustrated) to hold supplies and save space; a perpetual inventory; a visible index with a Kardex; and a central supply manual complete with index of every item.

24. Soltis, S. J. "Mobile Supply Closets Save Time, Money." Hospital Management 93:40-43, May 1962.

After 5 years the mobile supply closets at Beckley Memorial Hospital, Beckley, West Virginia, have proved themselves worth many times their original cost. Nursing personnel and other users of supplies and equipment do not waste time making out requisitions or making trips to central sterile supply, central stores, or the pharmacy to collect what they need or think they may need later. Each type of cart is restocked on a regular schedule, usually every 8 hours or 24 hours, depending on its purpose and function. Special or seldom used items are delivered to the service by dumb waiter.

Each cart can be specifically stocked to meet the requirements of any service or adjusted to the needs of the types of patients hospitalized. Six different carts are considered standard and include the following: sterile supply, solution, linen, pharmacy, housekeeping, and miscellaneous carts for use in X-ray, physical medicine, orthopedics, emergency ward, Ambulatory Patient Clinic, cystoscopy, the obstetrical and surgical suites, and patient floors.

The steel carts are yellow and have adjustable shelves and dividers. Accessories, which vary according to usage, include narcotic drawers, linen hamper rings, top rails, mop holders, and complement care holders. Similarly constructed carts, a battleship-gray color, serve the various areas as soiled carts.

With the exception of pharmacy carts, central sterile supply is responsible for processing all equipment and supplies; central stores stocks and delivers all supply carts. The pharmacy cart is a convenient means of transportation only and not an open-supply closet; it is stored in the pharmacy when not in use and is not available to anyone except the pharmacist. Used equipment and supplies, which are placed on the soiled cart in the nursing unit utility areas, are removed to central sterile supply on schedules which prevent accumulation of soiled equipment and facilitate speedy processing. Contents of each type of cart are included, as well as several illustrations.

25. "Standard Central Service Room Floor Carts Conserve Time, Energy." Hospital Topics 35:119-21, January 1957.

This article describes the use and benefits of carts for delivering supplies. Pictures, informative diagrams, and a listing of every item placed on the cart are included. The method for the development of floor standards which specifies the amount of supplies necessary on nursing units is also discussed. Hospital personnel feel that the use of carts for delivering supplies

conserves time of floor personnel and central service staff, and promotes better control of supplies.

26. "Storage." Hospital Management 90:92, September 1960.

A worthy suggestion for storing small articles and replacement parts in the central supply department is discussed in this article. Five types of plastic refrigerator containers, with lids, are used. They are labeled as to content. The following advantages of their use are noted: (1) uniform size and color of boxes improve appearance of the storage area; (2) replacement parts and the numerous parts are clearly visible; and (3) small articles are less likely to be misplaced or lost.

27. "Systems, Gadgets Save Time, Money at University of Minnesota Hospitals." Hospital Topics 40:87-90, October 1962.

Many changes in the central supply department, which services the 10 hospitals of nearly 800 beds at the University of Minnesota Hospitals, are briefly discussed in this article. Some of the most important are the changes in the charge system for surgical trays and in the processing of gloves and needles. Other additions which have shown ingenuity are the use of titled shelves for the wire baskets containing syringes and needles, and plastic dust-catching curtains over open shelves which formerly required frequent cleaning and dusting.

28. Warren, Vivian. "Wrapping Surgical Packs in the Laundry." Hospital Topics 39:78-79, September 1961.

The advantages of wrapping surgical packs in the laundry, in addition to improved efficiency and economy, are discussed in this article. The contents and costs of the 13 specified surgical packs are also noted. In this particular 252-bed hospital, the system has been used successfully for the past 7 years.

FUNCTIONS

29. Abbott, Esther. "Central Service - the Wesley Way." Hospital Management 83:82+, June 1957.

This article reviews the functions of the central service department at Chicago Wesley Memorial Hospital. The methods of organization and mass production are the two important factors which make the work of this department effective

and ultimately provide better nursing care for the patient. Functions discussed include hours of service, staffing, ordering of supplies and equipment (including illustrations of requisition forms used), and methods of delivery and pickup. Visible files (also illustrated) are used for tray content and procedures. The author stresses the importance of maintaining good working relationships with all nursing service personnel as well as other departments.

30. "Boston's Busiest... Peter Bent Brigham's Central Supply Services Operating Rooms, Wards, Research Areas, Physicians' Offices." Hospital Topics 38:101-105, March 1960.

Peter Bent Brigham's Central Supply Service Department not only supplies all ward areas, operating rooms, research areas, and physicians' offices, but also all the solutions for the surgical research laboratory at the Harvard Medical School and some autoclaving for the Harvard School of Public Health. The varied functions of the department are discussed. For example, the system of records and charges--developed through a meticulous, searching study by a cost analyst and the hospital's accounting department--has resulted in greater economy and efficiency.

The special forms used, which have been reproduced and included with explanations, are: (1) Central Supply Room Credit Memo; (2) Monthly Summary Requisition Sheet; (3) Central Supply Room Credit Memorandum--Monthly Summary; and Central Supply Room--Missing Reusable Equipment--Monthly Summary; (4) the three additional forms used to facilitate services and charges to physicians and patients--the Private Ambulatory Patient Requisition and Charge, the Charge Requisition, and the Credit form.

The article discusses the advantages of the specially designed dressing carts, which are stationed on the surgical services and contain everything needed to perform any type of surgical dressing. Each cart is returned to central supply twice daily, all equipment is removed and the cart is washed, restocked, and returned to the service.

The oxygen therapy department also operates from the central supply department and assumes responsibility for the resuscitation emergency carts.

The supervisor states that the responsibilities of administration (including the accounting office), the medical, nursing, and research personnel, and central supply dovetail neatly to make a closely knit overall operation. It is this type of operation, with perhaps some slight modifications, that she believes could work effectively in any size hospital.

31. Hofmann, R. E. "Efficient Methods for Central Service Procedures." Hospital Management 89:107,110, May 1960.

The author explains why it is imperative that the functions of the central service department first be determined before any hospital or industrial engineer can set up efficient methods for central service procedures. The advent of disposable sterile supplies means that the central service need not perform the usual processing functions (cleaning, packaging, and sterilizing) for these items, but merely the functions of storage, sorting, issuing, and inventory control. Other items, however, which are used must be cleaned, packaged, and sterilized. Because both types of operations exist in the average central service department, the design of the suite, the selection of its equipment, the methods developed, and the personnel used must be flexible. This is particularly true since no one can predict how far the trend will go toward or away from disposables. Therefore, the following recommendations are made: (1) central service procedures must face a change in emphasis in virtually every hospital before efficient methods can be initiated; (2) the concentration of design effort, the expenditure of dollars, and the methods engineering should be based on functional rather than architectural demands; (3) systems engineering does not begin and stop with the walls of the central service, but must be tied in at one end to the receiving inventory and bulk storage areas of the hospital and at the other end to and from the floors and operating departments so that the emphasis can be on service. These sections must cooperate in a complete system to close the circle, and administration must see that this is done.

32. Igel, A. A. "Improved Work Methods." Hospital Management 91:67-69, January 1961.

The article summarizes the study of their central supply department made by the Management Engineering Department of The Jewish Hospital, St. Louis, Missouri. The project involved detailed studies of all activities of the department, such as needle, syringe, and glove processing; and folding, packaging, and assembly of operating department linen. In addition, it included studies of activities which at that time were not functions of the department but since have been integrated into its work, i. e., delivery room and nursery linen folding, packing and assembly; and preparation of irrigating solutions. Standards, developed as controls of the performance of the department, include changed department layout, personnel master and functional schedules, job descriptions, and standard methods and procedures. It has been estimated that the annual saving will amount to about \$10,000 per year; \$8,100 in salaries and materials; and between \$1,500 and \$3,750 as a result of the inventory control system.

33. Markus, Frederick. "Function, Not Beauty, Important in Central Supply Room Design." Hospital Topics 33:78-9, August 1955.

The author briefly discusses how industrial methods of production and assembly can be employed advantageously in designing central supply departments. For example, proper interrelationships of work stations is most important, and these stations should be planned to allow proper work area and facilities for each. Work stations should be designed for dual use and arrangements made that best meet the work conditions and the workers' comfort. Other substantial gains in efficient operation can be obtained by a study of methods and work measurement.

34. Valentine, Brother. "I Would Like to Know More About Isolation Technique and the Isolation Cart." Hospital Management 95:93-94, January 1963; 95:100, February 1963.

The isolation technique and the isolation cart used at the Alexian Brothers' Hospital, St. Louis, Missouri, are discussed by the author. The contents of the isolation cart, obtained from the central service department, are listed. In addition to the Isolation Procedure carried out in the care of the patient, other isolation technique procedures are given for the following: (1) daily and terminal housekeeping, (2) cleaning and handling of instruments, (3) visitor policy, and (4) transfer of patient to other departments such as X-ray and surgery.

ORGANIZATION

35. Anderson, M.H. "Establishing a Central Service Department in a Hospital." Hospital Management 85:80+, April 1958.

The author states that planning for a central service department begins with the acceptance of the concept of centralized sterilization, packaging, storage, pickup and delivery of items required for certain specialized procedures. Objectives to be reached by such a department are: (1) safety of procedure, (2) economy of supplies, and (3) efficiency of performance. Other determining factors include location, floor space, functional areas, workflow, selection of equipment and supplies, selection of personnel, and the development of functions and procedures.

36. Anderson, M. H. "First Steps in Department Organization." Hospital Management 83:80-1, February 1957.

The author discusses the basic steps in organizing a new central service department. Suggestions are offered for planning the physical layout, the orientation of personnel, standardization of supplies, the system of marking supplies and areas of placement, delivery service, and record keeping.

37. "Central Health Services Councils: Report for 1961." The Hospital 58:631, September 1962.

The Joint Committee of the Central and Scottish Health Services Councils on Central Sterile Supply Services in Hospitals presented an interim report which suggested principles for planning and organizing central sterile supply departments. Among the suggestions were the following: (1) the central sterile supply department should serve an area large enough to employ its staff and equipment to full capacity preferably a general hospital group with 2,000 beds; (2) industrial methods should be followed to make the best use of unskilled staff by using repetitive processes and a continuous production flow; and (3) overall clinical responsibility should be delegated to a qualified consultant, although day-to-day management should be the responsibility of a properly qualified superintendent having the necessary technical knowledge and personal qualities.

38. Janke, O. M. and Briggs, F. R. "Reorganizing Central Supply for Service and Economy." Hospitals 29:68-73, November 1955.

Key to good service by central service is to have available the more frequently used supplies and treatment trays close to the point of use at all times. This is achieved by establishing a standard inventory of trays and intravenous solutions for each of the nursing divisions. Such an inventory should keep the nursing division supplied under normal circumstances for a 24-hour period. Replacement to this inventory count is on the basis of a rigid charge-requisition. In other words, as each item is removed from its floor storage location in the clean utility area for patient use, a charge record is created. The requisition card serves as the signal to central service to replace the item to the floor inventory. This is accomplished through a messenger service on a scheduled basis.

Another important element stressed is competent supervision. The supervisor must be a person with vision, leadership, and the ability to evaluate and analyze jobs being performed, assign duties, and oversee tasks. She must have knowledge and understanding of the needs to be met by the department and the functions of the staff in relation to the needs; she also must be able to formulate a plan of action to meet needs and establish procedures to implement the plan.

This hospital plans to continue studying the standardization of supplies, equipment, procedures, quality requirements, and labeling of items, with the planning committee responsible for investigation, evaluation, and recommendations for future changes.

PERSONNEL

39. Anderson, M.H. "Defining the Clerk's Role in the Central Service Department." Hospital Management 79:83, March 1955.

This article emphasizes the need for a general clerk in the central service department. Such a clerk can relieve a supervisor of many necessary but repetitious services such as keeping records, making followup calls, answering the telephone, typing, and printing signs and labels. Suggestions for assuring the efficient performance of these duties are given.

40. Anderson, M.H. "Preparation for Central Service Supervision." Hospital Management 87:70+, April 1959.

The author expresses concern over the lack of formal preparation given most central service supervisors to ensure good job performance. The data cited indicate that this distress is shared by many hospital administrators. The article suggests that the following basic subjects be taught: principles of supervision, purchasing, communication, teaching techniques, and skills specific to the department.

41. Anderson, M.H. "What Makes a Good Central Service Supervisor?" Hospital Management 80:75-6, July 1955.

The qualifications of a good central service supervisor are discussed; they include ambition, diligence, loyalty and, particularly, a sense of humor. A letter from a "good" central service supervisor, which exhibits all of these characteristics, is included as an example.

42. Anderson, M.H. "When You Train 'Auxiliary' Personnel." Hospital Management 79:65-6, February 1955.

Written in a semioutline form, this article is designed to aid the central service supervisor who is teaching nonprofessional personnel in the department. Philosophy and approach to teaching as well as actual methods of training are presented. The outline is concise and easy to follow. A suggested student nurses' training program is included.

43. "How Many Persons in Central Service Per Hospital Bed." Hospital Management 91:67, March 1961.

This article discusses a meeting held to determine the optimum number of persons in central service per hospital bed. The committee considering this problem concluded that one central service employee per 30 beds is standard. In addition, the committee discussed factors relevant to problems of physical layout of building, such as number of patients treated daily.

44. Valentine, Brother. "I Would Like to Know About Evaluating Central Service Technicians." Hospital Management 93:78, February 1962.

This article is primarily for supervisors who must evaluate their technicians' job ability and performance. In outline form the important factors to look for are enumerated and briefly discussed. For example, under "Conscientiousness" four helpful questions are listed to aid the supervisor in making a decision. Among 14 factors included in the outline are: work organization, cleanliness and neatness, and adjustment.

PLANNING

45. Baker, W.J. and Smith, Albert. "Planning the Central Service Department." Hospital Topics 39:85-9, July 1961. (Part I of a 3-part series.)

In determining the redesign of the central service department, the administrator should select plans which meet the demands of his institution. Included in the article is a checklist of certain basic considerations necessary in redesigning a central service area. This list is a guide to preliminary planning rather than a final master plan and covers planning, design, and services.

46. Bossong, F. G. and Jerine, Allen. "Collecting, Analyzing Data on Needs Essential in Planning for Future." Hospital Topics 39:87f, August 1961. (Part II of a 3-part series).

This article summarizes the planning experience of one hospital faced with an expansion program, which called for an increase of all ancillary services and the addition of 180 beds to bring the total bed count to 440. An industrial engineer was appointed manager of central service to improve management techniques and to conduct all the studies and surveys on space requirements necessary to the hospital's expansion program. Lacking hospital experience, his orientation was accomplished by conferring with the central service department nurse supervisor and by observing procedures. Data collection is discussed and an analysis presented on how determinations were made for planning workflow patterns, individual work stations, equipment requirements, storage allocation, location of service areas, and the development of floor plans.

47. "Cooperation in Planning Promotes Smooth CSR Operation." Hospital Topics 35:109-11, July 1957.

This article discusses the method used by one hospital to plan an expanded central supply department. The central supply room supervisor asked the staff in each department how central supply might best fill their needs. These suggestions were then discussed at a supervisors' meeting and major issues referred to the administration. Central supply departments at other hospitals were visited before the supervisor met with the architects and members of the building committee to correlate ideas to be incorporated into the new department. Floor space, including work areas; equipment and supplies; and plan of operation are also briefly discussed.

48. Letourneau, Charles U., M. D. "Automation for Hospital Central Service." Hospital Management. 90:35-37, July 1960.

A new concept of creating a central service department in hospitals with an efficiency that could rival that of industry is discussed in this article. The author explains that such efficiency is possible through coordinating the activities of those responsible for designing, planning and operating hospitals. Four illustrations of floor space, including work areas and adjacent departments, are presented as well as the functions of central service and methods of operation.

49. Lewis, John T. "The Work-Station Concept." Hospital Topics 39:87-90 September 1961. (Part III of a 3-part series).

Time-and-motion studies show that work stations in the central supply room should be designed for particular functions so that industrial workflow techniques can be used. These techniques will result in efficient workflow, effective utilization of personnel, and flexibility for expansion. To illustrate the workstation concept, the central supply room renovation plan of a hospital has been used as a case study, and the general objectives of central supply room planning are discussed.

50. Markus, Frederick E. and Christie, Joan, "Central Supply." Hospital Topics 33:87-91, December 1955; 34:93-95, January 1956; 34:81-92, February 1956; 34:119-121, March 1956; 34:107+, April 1956; 34:111-115, May 1956; 34:92-102, June 1956; and 34:111+, July 1956.

Eight articles on central service planning published in Hospital Topics, from December 1955 through July 1956, covered the following subjects: "What Is Wrong With Conventional Central Service Planning?" "Basic Central Service Planning;" "Storage in Central Supply;" "Linen in Central Service;" "Syringe Processing;" "Needle Processing;" "Glove Processing;" and "Model CSR Floor Plans."

51. "Special Report: Planning Central Service." Modern Hospital 96:79-102, March 1961. (Available as a reprint from The Modern Hospital Publishing Co., Chicago, Ill.)

The views of experts in architecture, engineering, and nursing regarding central service plans and practices are summarized. The article includes a nurse's report, "Every Plan Must Be Adapted to Hospital's Special Needs;" an engineer's report, "Better Production Is Engineer's Job: Professionals Set Standards;" an architect's report, "Where Planners Don't Plan, Employees Must Improvise;" another nurse's report, "How Central Service Delivers the Goods;" and numerous suggestions on planning offered by hospital consultants.

PROCEDURES

52. Anderson, M.H. "Setting up a C.S.R. Procedure Manual." Hospital Management 77:60+, January 1954.

The author states that a good procedure manual is essential to the effective operation of a well-functioning central service department. The contents should be so arranged as to be easily understood with a minimum opportunity for misinterpretation, but flexible enough to allow for revision. The manual should be designed to withstand much use and to be handled easily in the work area. The policy manual should be published as a separate document.

Methods of indexing and advantages of using a visible index folder or a ring-type notebook are discussed. Because revisions will be necessary, the ring-type notebook or index folder is recommended. Thus it is possible for a procedure to be completely revised without disturbing the remaining material. It is important that each procedure and each complete revision be dated. Subsequently, a list of revisions can be kept on file by number. This list can include all essential information, such as revision number, date of revision, procedure, who made the revision, and reason for change or remarks.

53. Hoschette, Sister M. Luke. "How and Why of Procedure Manuals." Hospital Accounting 15:16-17, May 1961.

The author states that coordinated team effort is essential to accomplish the objectives of hospital care, and such a close working relationship is possible only when all employees and all levels of management understand the functions, responsibilities, and authority of each person, department, or division of the complex hospital organization. This is the justification for a procedure manual, and a manual must be written for each particular situation. Other advantages include: (1) procedures will be defined and clarified, revealing many areas needing improvement; (2) training of new employees will be facilitated, actually reducing the length of orientation (when all instructions must of necessity be verbal); and (3) similar tasks performed by several different employees will be coordinated, thus keeping work duplication to a minimum.

The article recommends that the manual be written by an outsider who would be completely objective. Employees should be advised of the project so that they will cooperate in furnishing the basic material for the manual. A thorough study of the jobs to be included should be made; job descriptions and time studies are invaluable in providing a detailed breakdown of each

job and its accompanying responsibility. The rough draft of the manual should also be reviewed by all employees concerned, for any necessary revisions. The manual should be aimed at achieving the greatest efficiency and economy in hospital administration and in establishing and maintaining a maximum amount of control wherever necessary.

54. "How Do You Notify Personnel about Changes in Procedures?" (Synopsis). American Journal of Nursing 60:180-181, February 1960.

This article suggests that any proposed change should be studied by the procedure committee and should then be reviewed by the staff on the individual units for additional comments. The revised procedure should be demonstrated to all personnel concerned at scheduled intervals before it becomes effective. Inservice programs are another means for instructing new personnel and for reviewing procedures for others.

RECORDS AND REPORTS

55. Anderson, M. H. "Are All These Reports Really Necessary?" Hospital Management 95:86-88, January 1963.

The author discusses six easy steps to writing reports and the different ways reports are handled in an administrator's office. The suggested types of reports that should be meaningful to administration include: (1) monthly report of production and (possibly) income; (2) quarterly report of departmental activities, needs, and problems (includes staffing changes); (3) annual report of all phases of the departmental operation (includes budget and recommendations for improvement). Contents of a typical quarterly report of central service are presented.

Some general considerations stressed in report-writing are: be consistent-- use the same units throughout the report; be brief; avoid sending copies that are not used to advantage; summarize whenever possible; include an interpretation of the statistics whenever necessary.

56. Julian, Florence. "The Annual Report." Nursing Outlook 8:141,
March 1960.

The annual report need not be a routine chore, but can be a stimulating, informative technique for evaluating progress. Suggestions of various methods for collecting information for the annual report are given in this article. The report may be used to inform administration staff of the department's activities, goals, and progress, and it can help to keep goals realistic and current by constant review. Formal recommendations for desired changes may be presented in the report which also serves as reference when questions are asked about department activities.

Part II

MANUALS

1. Anderson, Mary Helen. Handbook for Central Service Supervisors. Volume II. Hospital Management, Inc. Chicago, Illinois. Undated. 52 pages.

This is a collection of articles on up-to-date practices in central service which have appeared in the Hospital Management magazine during the past several years. The articles discuss central service organization, supervision, and procedures. Several articles of general interest are also included.

2. American Sterilizer Company. Central Service Workshop. Erie, Pennsylvania. 1957. 79 pages.

This reports the proceedings of the Central Service Workshop sponsored by the Central Service Nurses' Conference Group of the Third and Fourth Districts, Minnesota Nurses Association, on November 29 and 30, 1956. Topics discussed include: proper planning of the central service department, control of supplies, work simplification, elements of work simplification, maintenance of sterilizing equipment, wrapping of packs and supplies and loading sterilizers, sterilization and disinfection, and orientation of central service personnel.

3. American Sterilizer Company. Central Service Department. Erie, Pennsylvania. 1959. 131 pages.

Proceedings of a symposium on the Central Service Department sponsored by the Administrative and Nursing Departments of the Boston City Hospital are presented in this publication prepared by the Research and Technical Projects Division of the American Sterilizer Company.

The reports discussed include: proper planning of the central service department, work simplification, distribution and control of supplies, and control of sterilization and chemical disinfection.

4. Central Supply Yearbook from Hospital Topics, Volume I. Hospital Topics, Inc., Chicago 2, Illinois. 1956. 106 pages.

A series of selected articles, which appeared in Hospital Topics magazine, are included in this yearbook as guides on central supply planning and operation. Areas covered include: administration, planning, functions, control, work simplification, and standardization.

5. Central Supply Yearbook from Hospital Topics, Volume II. Hospital Topics, Inc., Chicago 2, Illinois. 1958. 94 pages.

This publication includes material which has appeared in the central supply section of Hospital Topics since Volume I was published. The articles discuss ideas for improving efficiency within the department, especially in organization, processing and delivery of supplies, and supervision of personnel.

6. Central Supply Yearbook from Hospital Topics, Volume III. Hospital Topics, Inc., Chicago 2, Illinois. 1961. 88 pages.

This third volume, like its predecessors, brings together selected articles which have appeared in Hospital Topics. They include information on new developments in central supply and present ideas on how to improve the quality and efficiency of the operation.

7. Central Supply Yearbook from Hospital Topics, Volume IV. Hospital Topics, Inc., Chicago 2, Illinois. 1963. 85 pages.

This publication presents basic concepts for planning central supply departments in addition to the following subject topics: "Disaster Planning for the CSR," "Keys to Good Inhalation Therapy," "Teaching Control of Communicable Disease in a General Hospital," and "Sterilization and Control Testing of Disposables."

8. Diane, Sister M. A Manual for Central Service. Hospital Progress 40:92+, July 1959; 86+, August 1959; 82-3, September 1959; 90-1, October 1959; 102+, November 1959; 64-7, December 1959. (Available as a reprint from Hospital Progress, St. Louis, Missouri.)

This manual provides a handy reference for the central supply department, and equipment, a method to categorize central supply department, and the photographs are used to illustrate the, and the contents of each are listed.

9. Headquarters, Department of the Army. Centralized Materiel. Section. TM 8-275, Department of the Army Technical Manual. Washington, D. C. 1961. 101 pages.

This manual is designed primarily for use by personnel who are assigned to the Centralized Materiel Section in an Army medical treatment facility. It covers the organization of the Centralized Materiel Section, personnel and staffing, work and storage areas, operational techniques, and tray setups. Materiel is also included to serve as a guide to personnel assigned to the Centralized Materiel Section in field-type Army hospitals. Among the field areas discussed are space allocation, staffing, supplies, and equipment.

10. Miller, Mary Annice. Inservice Education for Hospital Nursing Personnel. National League for Nursing, New York City. 1958. 73 pages.

Prepared by the National League for Nursing, Department of Hospital Nursing, and cosponsored by the American Hospital Association, this guide may be used by all types and sizes of hospitals. It outlines the responsibilities of hospital nursing service personnel and inservice educators and suggests approaches and methods to be used. A reading list is included.

11. Nursing Service Department. The Central Supply Unit Manual of Policies and Working Relations. St. Francis Hospital, Wichita, Kansas. 1962. 152 pages.

Three sections comprise this manual: Section I, "Personnel," covers the functions and duties of all personnel employed in the department. Section II, "Management Policies and Working Relations," provides detailed instructions for performing each function as well as samples of forms used. Management policies and duties are specifically outlined, and information regarding the preparation of trays includes photographs of contents of trays and itemized equipment lists. Section III, "Directory and Floor Plan," is divided into three parts: (A) Directory (alphabetized) of all supplies; (B) Floor Plan -- design of the department; and (C) Cabinets (categorized), specifying location of cabinets in the various work areas as well as the contents of each.

12. The Pharmaceutical Society of Great Britain and Smith & Nephew Research Ltd. Recent Developments in the Sterilisation of Surgical Materials. The Pharmaceutical Press, London, England, 1961. 232 pages.

This publication is specifically for personnel responsible for the sterilisation of surgical materials. It is a report of a symposium organized by the Department of Pharmaceutical Sciences of the Pharmaceutical Society of Great Britain and Smith & Nephew Research Limited at the School of Pharmacy, University of London. Papers presented by specialists discuss sterilisation by ionising radiations, gaseous methods of sterilisation, hospital organisation in relation to the sterilisation of surgical materials, and sterility tests.

13. U. S. Department of Health, Education, and Welfare, Public Health Service, Division of Hospital and Medical Facilities, PHS Publication No. 930-D-4, Hospital Equipment Planning Guide. Washington, D. C., U. S. Government Printing Office. 1962. 66 pages.

This guide discusses the planning and preparation of equipment lists for a new general hospital and suggests equipment lists for 50-, 100-, and 200-bed general hospitals. Equipment items for central sterilizing and supply facilities are noted. Charts showing estimated equipment costs and sample forms for use in preparing equipment are also presented.

14. Veterans Administration, Department of Medicine and Surgery. Program Guide, Nursing Service: A Guide for Control of Central Service Supplies. G-3, M-2, Part V. Washington, D. C. 1956. 20 pages. (Available on loan to AHA members from the Library of the American Hospital Association, Asa S. Bacon Memorial, 840 North Lake Shore Drive, Chicago 11, Illinois.)

The guide was designed to acquaint nursing service personnel with methods for controlling central service supplies. Guidelines are included for implementing the following four steps: (1) systematic storage of supplies and equipment within the central service unit; (2) preparation and distribution of alphabetical master lists of supplies and equipment showing established stock levels of items; (3) preparation of a visible file of photographs and card listings of set and tray layouts, and (4) issue of supplies and equipment on requisition or by a delivery system.

Part III

PERIODICALS

1. Hospital Management, Hospital Management, Inc., 105 West Adams Street, Chicago 3, Illinois. Monthly.

The Central Service Department section presents articles on current practices in central service.

In addition, the National Association of Hospital Central Service Personnel features the NAHCSP Newsletter and the columns "I would like to know----" and "Product of the Month," to foster and promote the exchange of ideas among its members.

2. Hospital Topics, Hospital Topics, Inc., 30 West Washington Street, Chicago 2, Illinois. Monthly.

The magazine features a special section for central supply personnel, which presents practical articles on new developments in the field and suggestions for improving the quality and efficiency of central supply departments.

At intervals, selections from the monthly Central Supply Department section in the magazine are published as yearbooks. Central Supply Yearbook, Volume I (1956), Volume II (1958), Volume III (1961), and Volume IV (1963) are available.

3. The Modern Hospital, The Modern Hospital Publishing Co., Inc., 1050 Merchandise Mart, Chicago 54, Illinois. Monthly.

The Operating Room forum in this journal includes articles of interest to central service personnel.

4. The following periodicals publish articles dealing with central service activities.

The American Journal of Hospital Pharmacy, American Society of Hospital Pharmacists, 2215 Constitution Avenue, N. W., Washington, D. C. Monthly.

- The American Journal of Nursing. American Journal of Nursing Company, 10 Ferry Street, Concord, N. H. Monthly.
- Canadian Hospital. The Journal of the Canadian Hospital Association, 25 Imperial Street, Toronto 7, Ontario. Monthly.
- The Hospital. Official Organ of the Institute of Hospital Administrators, 75, Portland Place, London, W. 1, England. Monthly.
- Hospital Abstracts. (Monthly summaries of hospital articles from all parts of the world and in many languages). British Information Services, Rockefeller Plaza, New York, New York.
- Hospital Abstract Service. (Monthly abstract of hospital publications). Physicians' Record Company, 3000 South Ridgeland Avenue, Berwyn, Illinois
- Hospital Accounting. Journal of the American Association of Hospital Accountants. 840 North Lake Shore Drive, Chicago 11, Illinois Monthly.
- Hospital Forum. Journal for Hospitals in the West. Hospital Forum Publications, 4747 Sunset Boulevard, Los Angeles, California. Monthly.
- Hospital Literature Index. (Quarterly publication). American Hospital Association, Chicago 11, Illinois.
- Hospital and Health Management. The International Journal for Progressive Hospitals, Trafalgar Press, Ltd., 9 Catherine Place, Westminster, London, S. W. 1, England. Monthly.
- Hospital Progress. The Catholic Hospital Association of the United States and Canada, 1438 South Grand Blvd., St. Louis 4, Missouri. Monthly.
- Hospital and Social Service Journal. 27-29, Farnival Street, London, E. C. 4, England. Weekly.
- Hospitals. American Hospital Association, 840 North Lake Shore Drive, Chicago 11, Illinois. Monthly.
- The Journal of Hospital Research. American Sterilizer Company, Erie, Pennsylvania. Quarterly.

Nursing Outlook. American Journal of Nursing Company, 10 Ferry Street, Concord, N.H. Monthly.

RN. RN Publications, Inc., Oradell, N.J. Monthly.

Southern Hospitals. Clark-Smith Publishing Co., P. O. Box 1225, Charlotte, North Carolina. Monthly.

Institutes - Seminars

A number of institutes and seminars are held each year on Central Service Departments. Information may be obtained from listings in hospital journals, from the particular organization sponsoring the sessions, or from the National Association of Hospital Central Service Personnel, 60 East Scott Street, Chicago 10, Illinois.